

### **Remarks**

In the non-final Office Action dated June 8, 2009, claims 1-11 are rejected.

In this amendment, claims 1, 8 and 9 have been amended, and claim 5 has been canceled without prejudice. Reconsideration of the above-identified application, in view of the following remarks, is respectfully requested.

### **Claim Rejection under 35 U.S.C. §103(a)**

Claims 1-7 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Publication No. 2005/0174943 to Wang in view of U.S. Patent Publication No. 2002/0067729 to Fukuda et al. (hereinafter "Fukuda").

Claim 8 and 10-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over US Patent Publication No. 2002/0191572 to Weinstein et al. (hereinafter "Weinstein") in view of Fukuda.

Claim 9 stands rejected under 35 U.S.C. §103(a) as being unpatentable over US Patent Publication No. 2002/0191572 to Weinstein in view of Fukuda in further view of Wang.

### **Claim 1**

With respect to independent claim 1, it is respectfully asserted that none of the cited references, either taken singly or in any proper combination, teaches or suggests a method for controlling quality of service levels including at least the steps of: *“associating with the received frame an identifier that identifies a path through the network having a transmission capability sufficient to provide the determined QoS level/service level; and routing the frame in the network in accordance with the associated identifier”* as provided in the original claim 1.

In rejecting claim 1, the Examiner asserts that Wang discloses, inter alia, “...associating with the received frame an identifier that identifies a path through the network having a transmission capability sufficient to provide the determined QoS level/service level..”, citing Wang's paragraph [0013] (Office Action, p.4). Applicants disagree with this interpretation of Wang.

Paragraph [0013] describes mapping an identifier in a LAN to one or more identifiers (BSSIDs or SSIDs) in a WLAN for accommodating communication between the LAN and

WLAN for maintaining the quality of service (QoS). Furthermore, paragraph [0013] discusses that this identifier can be a VLAN tag at the LAN.

Although this may appear on its face to be similar to Applicants' claimed invention, the VLAN tag in Wang is simply used in accordance with the IEEE 802.1Q standard. As discussed by the Applicants (e.g., Specification, p.2, lines 12-14), under prior art practice, the VLAN number (tag) designates the identity of the network end point to receive the frame in accordance with the IEEE 802.1Q standard. However, in the present invention, the identifier or VLAN number is used in the network to select the appropriate path associated with the QoS level.

As stated in Wang in paragraph [0022], “[f]or accommodating the communication between the LAN and WLAN for maintaining the quality of service (QoS), it is configured that one or more set identifiers (SSIDs) or basic service set (BSSIDs) in the WLAN are mapping to a VLAN tag in the LAN, according to the IEEE 802.1Q” (emphasis added).

Thus, it is clear that, unlike Applicants' invention, the VLAN tag in Wang is not an identifier of the received frame, nor is it used to select or identify the appropriate path associated with a QoS level, as set forth by the claimed invention. Rather, Wang's VLAN tag is simply used in accordance with the IEEE 802.1Q standard, and therefore cannot anticipate, or render obvious Applicants' claimed invention.

Notwithstanding the foregoing, Applicants have amended claim 1 to clarify that the identifier, which identifies the path through the network, includes a VLAN number. This feature is supported by at least claims 5 and 9, and no new matter has been added.

The amended claim 1 recites, in part:

"associating with the received frame an identifier that identifies a path through the network having a transmission capability sufficient to provide the determined QoS level/service level, wherein the identifier includes a Virtual Local Area Network (VLAN) number."

The Examiner cited Fukuda's paragraphs [0053] and [0176] as allegedly disclosing the feature of selecting a path based on QoS parameters and associating an identifier for the path (see Office Action, p.4). The Examiner further concluded that it would have been obvious at the time of the invention "to modify the frame for controlling QoS levels of Wang with identifiers that identify a path through the network having a transmission capability sufficient to provide the

determined QoS level/service level as taught by Fukuda," which would benefit Wang's method by selecting a path with a QoS guarantee at a high speed (citing Fukuda's paragraph [0181].

Applicants submit that this conclusion represents impermissible hindsight based on Applicants' teaching, because nothing in Wang or Fukuda would have suggested the specific modification needed to arrive at Applicants' invention.

As previously mentioned, Wang teaches the mapping of a VLAN tag to one or more identifiers in the WLAN for accommodating communication to maintain a QoS. The VLAN tag, which is used according to the IEEE 802.1Q standard, is not associated with a received frame.

Fukuda teaches an apparatus that manages a network of elements having different communication technologies, in which a portion of the apparatus establishes one or more paths (or flow identifiers of the paths) that allow a predetermined QoS to be guaranteed (e.g., Fukuda, Abstract, para. [0053] and [0176]).

However, aside from the conclusory statement in the Office Action, there is no showing that either Wang or Fukuda teaches or suggests associating an identifier with a received frame as provided in Applicants' invention. Thus, even if combined, Wang and Fukuda still would not have resulted in Applicants' claim 1.

Since the combination of Wang and Fukuda fails to render claim 1 obvious, reconsideration and withdrawal of the rejection is respectfully requested.

#### Claim 8

With respect to independent claim 8, it is respectfully asserted that none of the cited references, either taken singly or in any proper combination, teaches or suggests a wireless LAN that includes "*an administrative gateway for establishing a Quality of Service level/service level for the one information frame and for instructing the Access Point to assign an identifier to the frame in accordance with the QoS level/service level established for the frame; and a switch for routing the frame to a destination selected in accordance with the assigned identifier,*" as provided in the original claim 8.

Similar to claim 1, claim 8 has been amended to include features relating to the VLAN number, and recites, in part:

"an administrative gateway for establishing a Quality of Service level/service level for the one information frame and for instructing the Access Point to assign

an identifier to the frame that identifies a path thorough the network having transmission capability in accordance with the QoS level/service level established for the frame, wherein the identifier comprises a Virtual Local Area Network (VLAN) number".

In rejecting claim 8, the Examiner asserted that Weinstein discloses the above cited administrative gateway of the claimed invention, citing paragraph [0084]. Paragraph [0084] of Weinstein describes that at each access point, each mobile subscriber packet is mapped into a Forwarding Equivalence Class (FEC) based on virtual operation membership and desired QoS. An MPLS label conveying the FEC information is inserted into the packet and is used by the Label Switched Routers along the MPLS path to determine VLAN assignment as well as 802.1p priority within each VLAN.

Thus, not only is Weinstein practicing the standard set forth by IEEE 802.1, it specifically teaches that Label Switched Routers operate to assign the VLAN, and does not disclose or suggest that the Access Point operates to assign an identifier as provided in claim 8. Furthermore, as stated above, Fukuda fails to disclose associating the identifier with the received frame for identifying a path in the network based on the determine QoS.

As such, claim 8 is also not obvious in view of Weinstein and Fukuda.

#### Claim 9

Claim 9 is rejected as being unpatentable over Weinstein and Fukuda in view of Wang. The Office Action acknowledged that Weinstein and Fukuda are both silent on the VLAN number, and cited paragraph [0013] of Wang as allegedly teaching the identifier assigned to the frame as comprising a VLAN number.

Applicants respectfully disagree with the Office Action's interpretation of Wang.

Claim 9 has been amended by deleting the feature relating to the identifier and the VLAN number. Instead, that feature has been incorporated into independent claim 8.

As discussed above, Weinstein and Fukuda, either singly or in combination, fail to teach or disclose at least the feature relating to the identifier of the frame and the VLAN number. Furthermore, unlike Applicants' invention, Wang's VLAN tag, which is used in accordance with the IEEE 802.1Q standard, is also not associated with a frame.

Thus, the combination of Weinstein, Fukuda and Wang also fails to render obvious the amended claim 8. Since claim 9 depends from claim 8, it is also patentable over the combined teaching of Weinstein, Fukuda and Wang.

Claims 2-7 and 10-11

Claim 5 has been canceled, and its rejection is therefore moot.

Claims 2-4, 6-7 and 10-11 depend, either directly or indirectly from claim 1 or 8. Accordingly, these claims are also patentable over the cited references for at least the reasons set forth above with respect to independent claims 1 and 8.

**Conclusion**

In view of the foregoing amendments and remarks, Applicants respectfully request that the rejection of the claims be withdrawn and that the pending claims be allowed.

However, if there are any remaining unresolved issues, the Examiner is invited to contact the Applicants' attorney at (609) 734-6834, so that a mutually convenient date and time for a telephonic interview may be scheduled.

Respectfully submitted,  
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